

REMARKS

Upon entry of the present Amendment, claims 1-20 are all the claims pending in the application. New claims 17-20 are added. No new matter is presented.

To summarize the Office Action, claims 1-3, 5-9, 11 and 14-16 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fraioli (U.S. Patent No. 3,903,574) in view of Nakayama et al. (U.S. Patent No. 4,818,236, hereinafter "Nakayama"). Further, claims 2 and 12-13 stand allowed, while claim 10 is objected to solely by virtue of depending from a rejected base claim.

The outstanding rejections are traversed, as discussed below.

Claim Rejection - 35 U.S.C. § 103

As noted above, claims 1-3, 5-9, 11 and 14-16 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fraioli in view of Nakayama. Applicant respectfully traverses and submits that the combination of features recited by these claims would not have been rendered prima facie obvious based on Fraioli or Nakayama, whether taken alone or in combination.

For instance, claim 1 defines a circuitry assembly, comprising, *inter alia*, a plurality of first electric wires, forming a first wire group; a plurality of second electric wires, intersecting the first electric wires, while forming a second wire group; a first insulative sheet, disposed between the first wire group and the second wire group; and a wiring member, which holds both of the first electric wires and the second electric wires. As further recited by claim 1, the wiring

member holds the first wire group in a first direction and the second wire group in a second direction which intersects the first direction such that the first wire group intersects the second wire group.

In rejecting claim 1, the Examiner initially relies on Fraioli, which is alleged to teach a plurality of first electric wires (referencing cable A) forming a first wire group (referencing Figure 6); a plurality of second electric wires (referencing cable B), intersecting the first electric wires, while forming a second wire group (referencing Figure 6); and a wiring member (referencing portions 11 and 12 of clamp 10), which holds both of the first electric wires and the second electric wires, wherein the wiring member holds the first wire group in a first direction and the second wire group in a second direction which intersects the first direction such that the first wire group intersects the second wire group. *See Office Action* at page 3.

The Examiner then turns to Nakayama, which is alleged to teach a first insulative sheet (referencing insulating sheet 8), disposed between the first wire group (referencing conductors 6₁ to 6₄) and the second wire group (referencing second wire group 9₁ to 9₄). The Examiner alleges it would have been obvious to combine Nakayama with Fraioli “in order to provide a seal over the entire length of the exposed wires up to and including the beginning of the insulative wire covering and protect from rain and dust.” *See Office Action* at page 3.

Applicant submits that the Examiner has failed to establish *prima facie* obviousness at least because the Examiner has failed to provide a sufficient motivation to combine Fraioli and Nakayama and has relied on impermissible hindsight reconstruction.

For instance, Fraioli teaches a one-piece cable clamp for joining cables that intersect at an angle, in which the clamp is made of a malleable metal and is tightened by squeezing the parts together to deform the clamps. *See* Fraioli at col. 52-60. With reference to Figure 6 of Fraioli, reproduced below, clamp 10 of Fraioli is taught as including an upper semicircular tubular portion 11 and a lower semicircular tubular portion 12 which respectively receive a pair of cables A and B crossed at a right angle therein. *See* Fraioli at col. 2, lines 25-38. Fraioli further teaches that the cable clamp is "particularly directed" to the clamping of plastic-cables for reinforced inflatable buildings. *See* Fraioli at col. 2, lines 53-58.

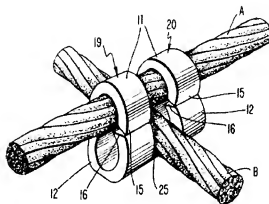


Figure 6 of Fraioli

On the other hand, Nakayama relates to a wire harness assembly in which flat conductors of a first branch harness are electrically connected to flat conductors of a second wire harness. More specifically, with reference to Figure 2 of Nakayama below, a vertical branch harness W_1 - W_4 is fixed to each harness conductor of a horizontal branch harness W_0 , respectively, by soldering, rivets, or grommets, through holes 7 formed in an insulating sheet 8 which is disposed between the vertical branch harness and the horizontal branch harness. *See* Nakayama at col. 3.

lines 18-28 and Figure 2. Thus, according to Nakayama, the conductors of a first and second group that intersect are electrically connected at respective holes of the insulating sheet.

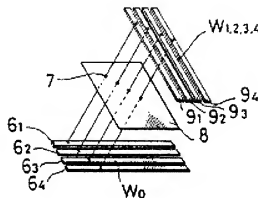


Figure 2 of Nakayama

The Examiner's asserted motivation to modify the cable clamp of Fraioli to include the insulative sheet of Nakayama is improper. Initially, Applicant notes that Fraioli teaches a single clamp that joins one cable in an intersecting relationship with another cable. Further, Fraioli's teaching is directed to joining structural cables of an inflatable building, and Fraioli makes no mention of joining electrical wires in an intersecting relationship.

However, even assuming for the sake of argument, that the cables of Fraioli could be analogized to a plurality of first electric wires and a plurality of second electric wires, the Examiner's asserted motivation is improper.

In this regard, Applicant notes that the Examiner has not provided any objective evidence that the insulating sheet of Nakayama would benefit the cable clamp of Fraioli in the manner alleged. Rather, Nakayama teaches that insulative sheet 8 is interposed between a first and second set of flat conductors which are respectively arranged in a planar fashion on opposing

surfaces of the insulative sheet to selectively provide electrical connection between specific conductors of one set and corresponding conductors of the second set.

The Examiner has pointed to no objective teaching to support the contention that the insulative sheet of Nakayama would protect the cables of Fraioli “from rain or dust” or “seal” exposed wires. Moreover, as Fraioli teaches only a single pair of cables being held in an intersecting relationship, the component strands of each cable would be nonetheless be considered the same conductor. In other words, only two conductors would be in electrical contact at the point of intersection. Thus, Nakayama’s teaching of an insulative sheet with plural holes for providing selective electrical connections among different flat conductors disposed on opposing sides of the sheet would have no application to intersection of only two cables, as taught by Fraioli.

Therefore, the Examiner has failed to provide a sufficient motivation to combine these references and the asserted motivation is not based on the objective teachings of the references. Rather, the Examiner has relied on impermissible hindsight reconstruction to selectively lift features from these unrelated teachings and force their combination improperly. Clearly, there is no suggestion of providing a seal over the entire length of the exposed wires up to and including the beginning of the insulative wire covering and protect from rain and dust, as the Examiner contends. One of ordinary skill in the art simply would not have been Fraioli and Nakayama motivated to combine such disparate teachings in the manner asserted.

Accordingly, as the combination of features recited by claim 1 would not have been *prima facie* obvious in view of either Fraioli or Nakayama, whether taken alone or in

combination, reconsideration and withdrawal of the rejection of claim 1 is requested at least for the foregoing reasons.

With respect to dependent claims 2-3, 5-9, 11 and 14-16, Applicant submits that these claims are allowable at least by virtue of their dependency and by virtue of the features recited therein.

New Claims

In order to provide additional claim coverage merited by the scope of the present invention, Applicant is adding new claims 17-20. Applicant submits that these claims are allowable at least by virtue of their dependency, as well as by virtue of the features recited therein.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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